at1110paper__practice__test (v16)

1. Expand the following expression into standard form.

$$(7x - 9)(4x + 5)$$

$$28x^2 + 35x - 36x - 45$$

$$28x^2 - x - 45$$

2. Solve the equation.

$$(3x - 4)(5x - 2) \ = \ 0$$

$$x = \frac{4}{3} \qquad x = \frac{2}{5}$$

3. Expand the following expression into standard form.

$$(9x + 7)(9x - 7)$$

$$81x^2 - 63x + 63x - 49$$

$$81x^2 - 49$$

4. Expand the following expression into standard form.

$$(7x + 2)^2$$

$$49x^2 + 14x + 14x + 4$$

$$49x^2 + 28x + 4$$

5. Factor the expression.
$$x^2 - 11x + 28$$

$$(x - 7)(x - 4)$$

6. Factor the expression.
$$81x^2 - 64$$

$$(9x + 8)(9x - 8)$$

7. Solve the equation with factoring by grouping.
$$15x^2 + 20x - 18x - 24 = 0$$

$$(5x - 6)(3x + 4) = 0$$
$$x = \frac{6}{5} \qquad x = \frac{-4}{3}$$

8. Solve the equation.
$$4x^2 - 18x + 12 = 2x^2 - 3x + 5$$

$$2x^2 - 15x + 7 = 0$$
$$(2x - 1)(x - 7) = 0$$
$$x = \frac{1}{2} \qquad x = 7$$